Advanced Precision Airborne Delivery Systems (APADS)

What It Is:

From 700-pound bundles of food to 5-ton trucks…airborne loads of all sizes must reach their targets precisely and autonomously — that is, without any human navigation. The Army uses our APADS, the Advanced Precision Airborne Delivery Systems, to deliver military equipment, vehicles and supplies.

Why It's Needed:

To deliver loads accurately, the aircraft used now must fly low over their targets-which puts them at risk from threats on the ground.

How It Works:

The APADS family includes four products, known as Guided Parafoil Air Delivery Systems (GPADS), to handle a range of loads: GPADS-Heavy, GPADS-Medium, GPADS-Light and GPADS-Extra Light. Each product consists of some sort of platform to carry its load (like a controllable parachute called a parafoil) integrated with the Global Positioning System for guidance and navigation.

Some features of the APADS:

- **Accuracy**…Loads are delivered to within 100 meters of the target.
- **Altitude**…The APADS can be deployed to heights of 25,000 feet.
- **Offset Distance**…The offset — how far the APADS flies after it's dropped from an aircraft — can be 12 miles or more.
- **"Drop and forget" Capability**…The APADS can deploy its load and — without tracking how the load drops — fly onto the next mission. That capability helps warfighters deliver nontraditional loads (like sensor and munitions) covertly and in any weather.

Benefits:

Reduced Vulnerability…Dropping loads from high altitudes and long offset distances protects the APADS from threats like small arms, light anti-aircraft artillery, and man-portable missiles — and also doesn't reveal the position of friendly ground forces.

Improved Readiness…The APADS can deliver loads precisely into a small drop zone, which means that soldiers can collect their supplies and prepare for operations faster and more efficiently.

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GPADS-Heavy at Yuma Proving Ground

Latest Version

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Soldier and Biological Chemical Command

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rev 4-3-00